

PARIA RIVER BASIN

09382000 PARIA RIVER AT LEES FERRY, AZ

LOCATION.--Lat 36° 52' 20", long 111° 35' 38", in NW1/4NE1/4 sec. 13, T.40 N., R.7 E., Coconino County, Hydrologic Unit 14070007, on left bank 0.6 mi northwest of Lees Ferry, and 1.1 mi upstream from mouth.

DRAINAGE AREA.--1,410 mi².

PERIOD OF RECORD.--Oct. 1923 to current year.

REVISED RECORDS.--WSP 1925: 1958(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,123.68 ft above sea level. Prior to Oct. 5, 1925, nonrecording gage at site 2,000 ft upstream at different datum. Oct. 13, 1925, to Sept. 11, 1929, nonrecording gage at present site and datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions above station for irrigation of about 3,300 acres, mostly in southern Utah.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s Oct. 5, 1925, gage height, 16.3 ft, from floodmark, from rating curve extended above 2,000 ft³/s on basis of float-area measurement of peak flow; maximum gage height, 16.65 ft Sept. 9, 1980; minimum daily discharge, 1 ft³/s in most years prior to 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sept. 7	1130	*554	*7.36

Minimum daily discharge, 2.4 ft³/s Aug. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	8.7	16	23	7.7	13	4.4	3.7	3.4	2.9	2.7	3.1
2	4.9	9.1	14	22	8.4	11	4.5	3.8	3.1	2.8	3.0	3.0
3	4.8	9.1	18	20	7.4	9.4	5.1	4.1	3.5	3.0	47	3.2
4	4.8	9.0	17	19	10	11	4.9	4.0	3.6	3.2	e32	3.4
5	5.0	9.0	18	19	13	15	5.2	3.8	3.4	3.1	e6.2	3.4
6	5.1	9.3	15	15	16	15	5.4	3.9	3.4	3.2	e4.6	4.2
7	10	9.9	14	16	16	14	5.3	3.7	3.4	2.8	e3.7	e157
8	5.8	10	15	20	17	14	5.4	3.5	3.1	2.8	3.1	e342
9	13	14	14	20	18	15	5.3	3.5	2.8	2.8	2.9	e153
10	11	14	13	20	15	11	5.5	3.8	2.9	2.8	2.8	e41
11	7.3	17	15	18	12	11	4.9	3.6	3.2	2.9	2.7	e18
12	6.1	16	17	15	15	12	4.8	3.7	3.3	2.9	2.6	e14
13	7.0	15	15	17	18	10	4.8	3.9	3.4	2.8	2.4	67
14	7.3	15	9.9	18	18	11	5.4	4.0	3.4	2.8	2.5	25
15	8.4	16	7.4	16	17	7.9	5.5	3.9	3.2	2.7	2.6	15
16	8.5	15	e6.2	17	16	8.3	4.5	3.9	3.0	2.8	2.7	9.8
17	8.9	15	e14	17	16	12	4.5	3.6	3.1	2.9	2.5	7.3
18	8.8	14	e17	e12	17	13	4.4	3.7	3.0	2.9	2.5	6.5
19	8.1	14	9.6	e10	17	11	4.7	3.8	3.1	3.1	2.5	6.2
20	7.7	14	10	e9.0	16	10	5.3	3.8	3.3	3.1	3.3	6.2
21	7.4	14	11	e10	15	9.5	5.2	3.7	3.0	3.1	3.6	5.6
22	7.8	14	13	e10	15	8.7	4.9	3.6	3.0	3.0	2.7	5.4
23	8.0	14	16	21	14	7.9	4.5	4.0	3.0	2.8	2.7	5.2
24	7.2	15	14	9.9	14	7.2	4.4	4.0	3.3	2.8	2.8	5.0
25	7.6	23	11	8.8	14	7.2	4.0	4.1	3.2	4.4	2.8	4.7
26	7.5	22	12	10	13	7.6	3.9	4.1	3.2	3.1	2.8	4.7
27	7.9	16	13	12	12	6.9	3.9	4.0	3.2	3.0	2.7	4.5
28	8.3	12	16	19	13	6.2	4.1	3.9	3.2	2.8	2.9	4.3
29	8.5	9.5	27	29	---	4.9	3.9	3.7	3.1	2.6	3.0	37
30	8.5	16	30	19	---	4.6	3.8	3.6	3.0	2.8	3.0	e163
31	8.7	---	25	17	---	4.6	---	3.5	---	2.8	3.0	---
TOTAL	234.8	408.6	463.1	508.7	400.5	309.9	142.4	117.9	95.8	91.5	166.3	1127.7
MEAN	7.574	13.62	14.94	16.41	14.30	9.997	4.747	3.803	3.193	2.952	5.365	37.59
MAX	13	23	30	29	18	15	5.5	4.1	3.6	4.4	47	342
MIN	4.8	8.7	6.2	8.8	7.4	4.6	3.8	3.5	2.8	2.6	2.4	3.0
AC-FT	466	810	919	1010	794	615	282	234	190	181	330	2240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2002, BY WATER YEAR (WY)

	MEAN	30.28	23.33	20.91	22.49	37.46	38.50	20.68	10.46	7.192	24.14	53.63	53.01
MAX	288	123	69.4	96.7	242	216	93.3	52.4	58.3	172	237	424	
(WY)	1926	1958	1967	1969	1980	1979	1979	1934	1972	1936	1932	1927	
MIN	5.99	10.1	8.81	8.03	14.3	8.86	4.75	2.03	1.97	2.32	4.51	4.18	
(WY)	1956	1991	1931	1931	2002	1972	2002	1927	1926	1939	1976	1968	

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1924 - 2002

ANNUAL TOTAL	5954.2	4067.2	
ANNUAL MEAN	16.31	11.14	28.47
HIGHEST ANNUAL MEAN			65.1
LOWEST ANNUAL MEAN			11.1
HIGHEST DAILY MEAN	189	342	6750
LOWEST DAILY MEAN	2.7	2.4	1.0
ANNUAL SEVEN-DAY MINIMUM	2.9	2.5	1.0
ANNUAL RUNOFF (AC-FT)	11810	8070	20620
10 PERCENT EXCEEDS	28	17	42
50 PERCENT EXCEEDS	12	7.0	14
90 PERCENT EXCEEDS	3.6	2.9	3.7

e Estimated

PARIA RIVER BASIN
09382000 PARIA RIVER AT LEES FERRY, AZ—CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Oct. 1948 to Sept. 1976, Sept. 1990 to current year.

INSTRUMENTATION.--Automatic-pumping sampler since Sept. 1990.

REMARKS.--Suspended-sediment total and sand discharge computed from sample data and by interpretation of a sample based suspended-sediment and streamflow discharge curve. Record for days when instantaneous discharge over the crest of the dam exceeds 30 ft³/s from Sept. 1990 to current year.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	e24600	---	---	---	476	---	---	---	---	---	---
2	---	e9930	---	---	---	390	---	---	---	---	---	---
3	---	e5560	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	389	939	---	---	---	---	---	---
8	---	---	---	---	577	11900	---	---	---	---	---	---
9	---	---	---	---	---	4690	445	---	---	---	e79900	---
10	---	---	---	---	---	11000	---	---	---	---	e21600	---
11	26500	---	---	---	---	12400	---	---	---	---	15400	---
12	e7000	---	---	---	---	4850	---	---	---	---	---	---
13	---	---	---	---	---	1900	---	---	---	---	16800	---
14	---	---	---	---	---	e804	---	---	---	---	18700	e8370
15	---	---	---	---	---	e469	---	---	---	e25900	7300	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	e17600
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	102000	---	---	---	---	1120	---	---	---	---	---	---
23	e426000	---	---	---	---	2010	---	---	---	---	---	---
24	e384000	---	---	---	---	2070	---	---	---	---	---	---
25	e16400	---	---	---	---	1750	---	---	---	---	---	---
26	3070	---	---	---	---	1370	---	---	24200	---	---	---
27	69000	---	---	---	---	---	---	---	e32600	---	---	---
28	1310000	---	---	---	---	---	---	---	---	---	---	---
29	e102000	---	---	---	---	---	---	---	---	---	---	---
30	e45000	---	---	---	---	---	---	---	---	---	---	---
31	e64200	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	7750	---
4	---	---	---	---	---	---	---	---	---	---	e1400	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	e32200
8	---	---	---	---	---	---	---	---	---	---	---	e200000
9	---	---	---	---	---	---	---	---	---	---	---	e77700
10	---	---	---	---	---	---	---	---	---	---	---	e10700
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	14400
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	16400
30	---	---	---	---	---	---	---	---	---	---	---	e46900
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated

09382000 PARIA RIVER AT LEES FERRY, AZ—CONTINUED

SEDIMENT DISCHARGE, SUSPENDED, SIEVE DIAM. GREATER THAN .062 MM (TONS/DAY)
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	e1250	---	---	---	41	---	---	---	---	---	---
2	---	e451	---	---	---	19	---	---	---	---	---	---
3	---	e16	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	51	55	---	---	---	---	---	---
8	---	---	---	---	58	1080	---	---	---	---	---	---
9	---	---	---	---	---	291	31	---	---	---	e19400	---
10	---	---	---	---	---	1300	---	---	---	---	e1370	---
11	3890	---	---	---	---	1590	---	---	---	---	985	---
12	e1120	---	---	---	---	346	---	---	---	---	---	---
13	---	---	---	---	---	72	---	---	---	---	433	---
14	---	---	---	---	---	e15	---	---	---	---	918	e868
15	---	---	---	---	---	e7.7	---	---	---	e2280	36	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	e1210
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	44100	---	---	---	---	29	---	---	---	---	---	---
23	e201000	---	---	---	---	50	---	---	---	---	---	---
24	162000	---	---	---	---	71	---	---	---	---	---	---
25	2390	---	---	---	---	72	---	---	---	---	---	---
26	111	---	---	---	---	44	---	---	981	---	---	---
27	14200	---	---	---	---	---	---	---	e3030	---	---	---
28	426000	---	---	---	---	---	---	---	---	---	---	---
29	e8740	---	---	---	---	---	---	---	---	---	---	---
30	e2330	---	---	---	---	---	---	---	---	---	---	---
31	e11200	---	---	---	---	---	---	---	---	---	---	---

e Estimated

SEDIMENT DISCHARGE, SUSPENDED, SIEVE DIAM. GREATER THAN .062 MM (TONS/DAY)
WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	1210	---
4	---	---	---	---	---	---	---	---	---	---	e26	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	e7040
8	---	---	---	---	---	---	---	---	---	---	---	e40400
9	---	---	---	---	---	---	---	---	---	---	---	e5150
10	---	---	---	---	---	---	---	---	---	---	---	e154
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	1590
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
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21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	3320
30	---	---	---	---	---	---	---	---	---	---	---	e8530
31	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated